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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,303	12/26/2000	Tsutomu Sasaki	001715	2061

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EXAMINER

ELLIS, KEVIN L

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 08/11/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/745,303

Applicant(s)

SASAKI ET AL.

Examiner

Kevin L. Ellis

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Detailed Action

1. Claims 1-4 are presented for examination. This Office Action is in response to the response filed 2/25/04.

Claim Rejections – 35 USC § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al., U.S. Patent 5,428,579, in view of Kawasaki et al., U.S. Patent 6,332,196.

A) As to claims 1, 2, and 4, Robinson et al. discloses the invention substantially as claimed. There is a data reproduction device (the personal computer 101 shown in figure 1) that comprises a control circuit for reading out data recorded on a memory card (the "memory card" is shown as 110 in figure 1; the "control circuit" would be circuitry in personal computer 101 which would allow communication with the memory card when connected to the computer through connection 112) having a controller mounted thereon (Robinson et al. teaches at Col 5 Lines 10-12 that the memory card includes a controller. This controller can also be considered the "first control means to read out the data from the memory card" which is claimed at line 10), and a data processing circuit for giving required processing to the read data and outputting the generated data (personal computer 101 contains a microprocessor/CPU that would be the "data processing circuit").

Robinson et al. also teaches that the controller of the memory card can operate the card under two current consumption modes, an active and a standby mode (see Col 2 Lines 6-12 and Line 50 to Col 3 Line 49). The memory card operates in the active mode when it is being read or written to and in the standby mode when no operation is occurring to the memory card. The standby mode operates with a non-zero current consumption for a second current value less than the first current value (see Col 9 Lines 3-54). This results in the same power savings as the present invention. However, Robinson et al. does not disclose the buffer memory that data is read into and that when the amount of data stored in the memory falls below a threshold the memory card is then operated in the active mode.

Kawasaki et al. teaches a buffer that is utilized similarly to the claimed buffer. The buffer of Kawasaki et al. stores data from a storage device and when the buffer contains sufficient data the storage device is operated in a lower power mode. When the amount of data falls below a threshold the storage device is operated in an active mode and data is read into the buffer (see Abstract and Col 3 Lines 5-45). The buffer of Kawasaki et al. would also inherently include a "control means" to control reading from and writing to the buffer, thus meeting the "second control means to read out the data stored in the buffer" limitation at lines 11-12. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Kawasaki et al. in the system of Robinson et al. and provide a buffer between the memory card and the requestor of the data. The operation of the memory card would operate in a manner similar to that of the storage device taught by Kawasaki et al. When

there is sufficient data in the buffer the memory card can be operated in a reduced power state, when the amount falls below a threshold the memory card would be operated in the powered up state (active mode) and data read into the buffer. This arrangement would provide power savings because the amount of time the memory card operated in a powered on state (active mode) would be decreased.

As for the limitation regarding "read out the data from the memory card at a first bit rate to store the generated data to the buffer ... read out the data stored in the buffer at a second bit rate less than the first bit" (Claim 1 Lines 10-12), these limitations would be inherently met by the teachings of Kawasaki et al. that are combined with the teachings of Robinson et al. There are only three scenarios possible with regard to the data transfer rates of the memory and that of the buffer:

1. memory data transfer rate < buffer data transfer rate
2. memory data transfer rate = buffer data transfer rate
3. memory data transfer rate > buffer data transfer rate

In order for the power savings Kawasaki et al. discloses to happen, the only scenario that can be true is the third one. With the first and second scenario the buffer would never fill up with data because it is being read out of the buffer at a greater or equal to data transfer rate than data is being read from the memory. This would mean that the memory would always be powered on in order to access more data. With the third scenario since the data transfer rate of the memory is greater than the data transfer rate of the buffer, the buffer can be filled with data and then read from the buffer while the memory is powered down resulting in a power savings. Thus the combination of Robinson et al. and Kawasaki et al. would meet the claimed differences in bit rates of the

memory and buffer as the claimed bit rates (buffer bit rate being less than the memory bit rate) is the only scenario possible that would allow for the power savings taught by Kawasaki et al.

- B) As to claim 3, Robinson et al. teaches setting the memory card in the standby mode when there is no memory access within a predetermined period of time (see Col 16 Lines 16-24).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

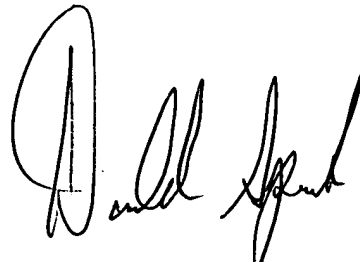
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin L. Ellis whose telephone number is 703-305-9659. The examiner can normally be reached on weekdays from weekdays from 6:00AM-2:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 703-306-2903. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Kevin L. Ellis
Primary Examiner
August 10, 2004



DONALD SPARKS
SUPERVISORY PATENT EXAMINER